

the chances are he won't be able to do it at all. Although not as apparent, eye movements which are contrary to habit are similarly difficult.

The connection of natural eye movement with the principles of display is this. Displays should be so constructed that, wherever possible, the natural eye movement can be followed. We all would have trouble reading a printed page or studying an advertisement which disregarded the usual eye movement: left to right and top to bottom. Don't expect people to spend much time following the sequence of a display which disregards this principle.

For instance, don't expect people to start at the bottom of a display and then move their eyes gradually upward as they take in the various aspects of the display. Take advantage of the way people's eyes naturally follow things and arrange displays accordingly.

(Another article in this series will appear in the March issue.)

THE RELATIONSHIP OF MEDICINAL WHISKY TO THE NUMBER OF DRUG STORES AND THE REGISTRATION IN SCHOOLS OF PHARMACY.

BY J. G. BEARD.

For some years now many people have been assuming that the sale of whisky on prescriptions is partly responsible not only for the increase in the number of drug stores in "Whisky States" but for the enlarged enrollment of students in the pharmacy schools of the same states. For example, some time back the pharmaceutical press and public made frequent reference to the great increase in drug stores in New York state, and in every case blamed medicinal whisky for the growth. Other illustrations have been cited to show that legal permission to dispense whisky heightens the urge to engage in the drug business to such an extent that not only more persons enter pharmacy schools but more stores are opened to take advantage of the lucrative business of whisky selling.

This writer believed that there was more fallacy than fact in many of the assumptions made, and acting on this belief he recently made inquiry of responsible pharmacists in every state to find out what relationship, if any, exists between prescription-whisky and store and student increase. The results of this inquiry seem to show that whisky *per se* has little to do with the growth in numbers either of stores or of students. It is true that facts and figures from a few states give affirmation to the idea that whisky is a controlling factor, but data from other states are directly contradictory, and from still other states no significance can be read into the returns. Taking the country as a whole one gathers that a change in merchandizing methods and a growing demand for neighborhood drug service are the factors responsible for the increased number of drug stores. As the number of stores grows greater and as prerequisite laws become more widespread it follows as a necessary sequence that the enrollment in pharmacy schools should become correspondingly larger. These natural causes and not whisky are responsible for more drug stores and more pharmacy students.

The foregoing conclusions become more plausible when one studies the facts and figures to be appended below. The data that will be quoted came from officials

of schools of pharmacy, about 90 per cent being from the heads of the 64 colleges of pharmacy in the United States that answered the questionnaire.

It is perhaps well to insert at this point parallel columns showing the states that allow and the states that forbid the sale of whisky on physicians' prescriptions.

GROUP I.		GROUP II.	
Medicinal whisky allowed.		Medicinal whisky forbidden.	
California	New Hampshire	Alabama	North Dakota
Colorado	New Jersey	Arizona	Oklahoma
Connecticut	New York	Arkansas	Oregon
Illinois	Ohio	Delaware	South Carolina
Iowa	Pennsylvania	Florida	Tennessee
Kentucky	Rhode Island	Georgia	Utah
Louisiana	South Dakota	Idaho	Washington
Maryland	Texas	Indiana	West Virginia
Massachusetts	Vermont	Kansas	
Michigan	Virginia	Maine	
Minnesota	Wisconsin	Mississippi	
Missouri	Wyoming	Nebraska	
Montana	District of Columbia	New Mexico	
Nevada		North Carolina	

It is thus seen that 26 states, or 54 per cent, plus the District of Columbia, permit the sale of whisky on prescriptions, and 22 states, or 46 per cent forbid such sale.

If allowing whisky to be dispensed on prescription leads to an increased number of stores and students, one would naturally expect that the growth in the states of Group I (the "wets") would be appreciably greater than those in Group II (the "drys"). But is it?

The college deans were asked to designate whether drug stores in their respective states were growing more or less numerous and whether this increase or decrease was "slow," "steady," or "marked." Their answers show the following facts:

I.—In 26 states allowing the sale of medicinal whisky there is, with two exceptions (Virginia and Minnesota), a growth in the number of stores. In 10 of the states this growth is "steady;" in 7 it is "slow;" in 2 (as noted above) there is a decrease and in 7 the degree of growth was not indicated. In no case was there a "marked" increase, according to the deans.

II.—In the 22 states forbidding the sale of medicinal whisky we find that 6 have had a "steady" increase of stores, 6 a "slow" increase, and 3 have experienced no change. In 6 states the rate of growth was not indicated.

Comparing the above returns we find that the states of Group I are showing a somewhat greater increase in drug stores than are the states of Group II. But can this greater growth be attributed to whisky? The reader is asked to look back for a moment at the two columns of states and note the character of each. Without suggesting obnoxious comparisons we nevertheless must see that Group I contains states that on the whole are showing greater progress than are the states in Group II. Not only are they setting up more drug stores but they are establishing more factories, more schools, more roads, more of everything that in modern times is

thought of as important. In other words it would be a matter of surprise if the deans in Group I states had *not* reported a greater increase in drug stores than Group II deans. So much for the relationship of drug-store growth to whisky.

Turning now to the changes in the student enrollment in the 64 colleges covered by this report. The deans in these colleges were asked this question: "What percentage change is shown in the total enrollment in your school this year over the corresponding period of last year?"¹

The replies show that 37 schools have an enrollment greater this year than last; 13 have a smaller enrollment; while 14 show no change over last year. In other words, of the 64 schools of pharmacy in the United States, 57.8 per cent showed a student gain this year, 20.3 per cent showed a loss and 21.9 per cent remained the same numerically.

The increases range all the way from 1.3 per cent at the California College of Pharmacy to 84 per cent at Meharry Medical College. (Birmingham Southern College reported a 150 per cent increase but the school was only started in January 1927, and this is really the first full year of the school's activity.)

Here are the 37 colleges that showed a gain. Those in "Whisky States" will be italicized to make later comparisons easier.

PER CENT GAIN.	NAME OF COLLEGE.	PER CENT GAIN.	NAME OF COLLEGE.
1.33	<i>California College of Pharmacy.</i>	21.	<i>University of Southern California.</i>
2.	<i>University of Montana; University of West Virginia.</i>	22.	<i>Indianapolis College of Pharmacy.</i>
3.	<i>Medical College of Virginia.</i>	24.	<i>New Orleans College of Pharmacy.</i>
4.	<i>University of Oklahoma.</i>	25.	<i>University of Pittsburgh; College of City of Detroit; University of Maryland.</i>
4.5	<i>Columbia University.</i>	30.	<i>George Washington University; Ohio State University.</i>
5.	<i>State College of Washington; University of North Carolina.</i>	33.	<i>Louisville College of Pharmacy.</i>
7.	<i>Creighton University.</i>	35.	<i>University of Illinois; St. Louis College of Pharmacy.</i>
7.75	<i>University of Tennessee.</i>	36.	<i>State University of Iowa.</i>
10.	<i>Purdue University; North Dakota Agricultural College; Rhode Island College of Pharmacy.</i>	44.	<i>Medical College State S. C.</i>
12.	<i>University of Washington.</i>	58.	<i>University of Texas.</i>
13.	<i>Western Reserve University.</i>	84.	<i>Meharry Medical College.</i>
15.	<i>New Jersey College of Pharmacy.</i>	150.	<i>Birmingham Southern College.</i>
20.	<i>Notre Dame; University of Florida; Detroit Institute of Technology.</i>		

The Philadelphia College of Pharmacy and Temple University both reported "Increase," but offered no percentage figures.

It will thus be seen that 23 of the gainers are in "wet" states and 14 are in "dry" states.

Seven of the deans who reported gains stated that the increases were due to the three-year minimum course in pharmacy that for the first time this year caused three classes to be in college at one time instead of two as heretofore.

¹ The date of the inquiry was Nov. 7, 1927. Every school but one (Mercer) answered. There may be more than 65 incorporated schools in the country but this writer knows of only that number.

The following 13 colleges show a decreased enrollment this year over last.

PER CENT LOSS.	NAME OF COLLEGE.	PER CENT LOSS.	NAME OF COLLEGE.
2.	Southern College of Pharmacy.	16.	<i>University of Michigan.</i>
3.	<i>University of Colorado; Mass. College of Pharmacy.</i>	20.	University of Kansas.
3.2	North Pacific College of Phar- macy.	23.6	Valparaiso University.
12.	<i>Fordham University.</i>	29.5	<i>Baylor University.</i>
15.	University of Nebraska; <i>Uni- versity of Buffalo.</i>	40.	University of Utah.
		50.	University of Georgia.

Six of the losers are in "wet" states; seven are in "dry" states.

The following 14 colleges report that no change took place in the size of their student bodies this year:

Alabama Polytechnic Institute, Howard University, Tulane University, University of Minnesota, University of Mississippi, Kansas City College of Pharmacy, Albany College of Pharmacy, Brooklyn College of Pharmacy, Ohio Northern University, University City of Toledo, Cincinnati College of Pharmacy, Oregon Agricultural College, State College of South Dakota, University of Wisconsin.

Eleven of the above are in "wet" states while three are in "dry" territory.

It hardly seems possible from this data to establish the point that the sale of medicinal whisky has any particular bearing either upon the growth of drug stores or the number of persons studying pharmacy. If the state is progressive and business and industry within it are expanding, then drug stores—and pharmacy students to man them—become more numerous irrespective of whether whisky is a commodity dispensed or tabooed. Whisky has done a host of things to pharmacy, most of them bad, but taking the country over, it has had no particular effect upon the number of drug stores nor has it added very greatly to the personnel. Oftentimes it has changed the character but seldom has it changed the census of pharmacy.

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Nothing said in the forgoing article should be construed as meaning that the author favors the sale of medicinal whisky. On the contrary he abhors it almost violently and is on record frequently in opposition to such sale. In this instance he was not arguing for or against whisky on prescriptions but simply refuting a popular idea that whisky is responsible for the recent increase in drug stores and pharmacy students.

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BILL TO PREVENT DIPLOMA MILLS.

Representative Gibson has introduced a bill in the House of Representatives which would prohibit any institution in the District of Columbia from conferring any degree except by license from the board of education. The board of education would be prohibited from granting any such license until it had established evidence on four points: (1) that the trustees or directors of the institution are

persons of good repute and qualified to conduct an institution of learning; (2) that a degree shall be granted only after such a period of residence and quantity of work as is usually required by reputable institutions; (3) that applicants for degrees possess the usual high school qualification, and (4) that the faculty is of reasonable number and properly qualified, and that the school have suitable laboratories, class rooms and library equipment.